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REMARKS

Presently, claims 1-9 and 16-42 are pending in the application.

Entry of Rule 116 Response

Entry of the response herein is respectfully requested because such response, including the remarks, renders moot the outstanding rejections under 35 U.S.C. § 103. The present response does not raise any new issues that would require further consideration and/or searches, since all of the limitations in the pending claims were previously presented, considered and presumably searched. No new matter is raised by this response. This response could not have been presented earlier since it responds to a new ground of rejection made in the final rejection.

Prior Art Rejection – § 103(a)

The Examiner has rejected claims 1-6 and 9 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,487,721 to Safadi ("Safadi") in view of U.S. Patent 5,687,095 to Haskell *et al.* ("Haskell"). The Examiner contends that Safadi teaches all aspects of the present invention with the exception of computing a rate profile. The Examiner further contends that Haskell teaches this feature and concludes that it would have been obvious to combine Haskell's teachings with Safadi. For the reasons stated in Applicant's Amendment in response to the Office Action dated March 30, 2004, and for the reasons stated below, Applicant respectfully traverses this rejection.

Safadi discloses the insertion of digital commercial content into a television transport stream that is compatible with cue tones in older analog television signals. Safadi only discloses the insertion of a signal at points designated by the cue tones. The commercial to be inserted may be adapted (including compression) to fit bandwidth allocated for the program to which the commercial belongs. Safadi relies on cue commands to designate the bit rate for the inserted commercial to match. Safadi does not analyze the original program signal to measure bit rate or in any way compute that rate or compute a rate profile for the original program.

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Haskell discloses digital video transmission rate matching techniques, where the desired rate is pre-established without analysis of an original video stream. Haskell's system is not directed to, however, analyzing a video program profile over time or to calculating a bit rate profile from an input video stream. In Haskell, the bit rate of an original video stream is manipulated to produce the same video signal encoded at a different bit rate (see column 4, lines 38-55). The rate to which the video signal is adapted is not "computed," but predetermined "based upon the desired output signal and the buffer status signal. [T]he rate control circuitry computes the total number of bits for each frame, as well as the bits targeted for each macro block" (see column 5, lines 28-34). In Haskell, the "desired" output signal rate is not computed, but received by the system itself. "The rate control circuit includes a first communications line adapted for receiving a signal...which specifies a desired output bit rate for transmission buffer 111" (see column 5, lines 17-20, emphasis added). The Examiner argues that Haskell teaches "calculation of the bit rate of each frame and bits per macro block," relying on column 5, lines 29-35 of Haskell (see page 2 of the Office Action). However, such a calculation is for a bit rate that is already known, which is stated in the same sentence of Haskell that the Examiner quotes. The calculation referred to in Haskell is not an analysis of an input stream to determine a desired bit rate profile over time, but rather a calculation used for the compression process applied to the signal to be modified by Haskell's system.

Applicant's invention is directed to a system and method for inserting whole video streams into statistically-multiplexed video streams containing multiple video programs, replacing an existing program stream with a replacement program stream. In Applicant's invention, the bit rates over time of the existing and replacement streams are important factors in this replacement. As explained in Applicant's disclosure, one of the problems addressed by the present invention is the replacement of programming material that has a constantly varying bandwidth. "Because the bandwidth of each program is varying, an original advertisement inserted into the program stream at the origin point will have a time varying bandwidth. Inserting another advertisement at the re-transmission point is not readily facilitated in existing systems because the bandwidth is varying and in some cases not easily discernable by the equipment at the re-transmission point" (see pg. 2, lines 20-27 of the specification).

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Independent claim 1 recites (with emphasis added):

A method for inserting a digital media advertisement in a
digital multiplexed stream, the method comprising:

<u>computing a rate profile associated with a program stream</u>;

compressing the digital media advertisement according to
the computed rate profile; and

inserting the compressed digital media advertisement in the
digital multiplexed stream at an advertising opportunity in
the program stream.

As acknowledged by the Examiner, Safadi does not teach or suggest "computing
a rate profile associated with a programming stream." Safadi does also not teach or
suggest "compressing the digital media advertisement according to the computed
profile," since Safadi only teaches adapting programming to a fixed "bandwidth allocated
for the program to which the commercial belongs." (col. 5, lines 29-30). Accordingly,
Safadi does not teach or suggest all of the features of independent claim 1.

Haskell neither teaches nor suggests "computing a rate profile associated with a
program stream." As demonstrated above, Haskell simply takes "a desired bit rate" from
an input signal and manipulates the original video stream to achieve the desired bit rate.
Such a feature does not teach or suggest the **calculation** of a rate profile. Haskell's
system also does not involve both a "program stream" and a separate "digital media
advertisement."

Additionally, the fixed bit rate to which Haskell converts the input video stream is
not a "rate profile" as recited in claim 1. A single rate applicable to an entire video
stream does not calculate, track or otherwise determine varying bandwidth over time of a
video stream. In short, a single bit rate is not a rate profile. In contrast, Applicant's
invention establishes the bit rate of a signal over time, not single rates for the entire
replacement video stream. For example, the profiles 510, and 520 in Fig. 5 of
Applicant's disclosure, show two custom rate profiles. In this example, profile 510 has a
coarse profile with the bit rate varying substantially over time and profile 520 has a fine

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time granularity for definition of a bit rate that may vary dramatically over very short periods of time. However, such "rate profiles" would not be produced with the single bit rate system taught by Haskell. Moreover, use of a single bit rate that is high enough to accommodate the highest peaks of either profile 510 or 520 would result in substantial unused bandwidth during the lower bit rate periods of these profiles. One advantage of Applicant's invention is the ability to accurately fit a new advertisement into the **rate profile** of the original advertisement, without wasting bandwidth during the program. The single bit rate adjustment taught by Haskell does not teach such a concept. Accordingly, Haskell does not teach or suggest all aspects of Applicant's invention.

Not only do Safadi and Haskell not individually teach or suggest Applicant's invention, but the combination of these references, even if proper, does still not disclose all of the features of independent claim 1. More specifically, neither Haskell nor Safadi teach or suggest that the bit rate of the program material to be replaced varies over time or that a "rate profile" is used to compress video material to replace the original material. Thus, Applicant respectfully submits that Safadi in view of Haskell does not disclose all of the features of independent claim 1. Accordingly, claim 1 is believed to be allowable over Safadi and Haskell.

Dependent claims 2-6 and 9 are allowable at least by their dependency on independent claim 1. Reconsideration and withdrawal of the Examiner's rejection of claims 1-6 and 9 are respectfully requested.

The Examiner has rejected claim 7 as being unpatentable over Safadi in view of Haskell, and further in view of U.S. Patent No. 6,611,624 to Zhang ("Zhang"). As discussed above with respect to the Examiner's obviousness rejection of claims 1-6 and 9, independent claim 1 is believed to be allowable over the combination of Safadi and Haskell. Applicant respectfully submits that Zhang does not teach or suggest any of the elements missing from such combination. Thus, independent claim 1 is believed to be allowable over the combination of Safadi, Haskell and Zhang. Accordingly, claim 7 is allowable at least by its dependency on independent claim 1. Reconsideration and withdrawal of the Examiner's section 103(a) rejection of claim 7 are respectfully requested.

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The Examiner has rejected claim 8 as being unpatentable over Safadi in view of Haskell and Zhang and further in view of U.S. Patent No. 6,208,688 to Sao *et al.* ("Sao"). As discussed above with respect to the Examiner's obviousness rejection of claims 1-6 and 9, independent claim 1 is believed to be allowable over the combination of Safadi and Haskell. Applicant respectfully submits that Zhang and Sao do not teach or suggest any of the elements missing from such combination. Thus, independent claim 1 is believed to be allowable over the combination of Safadi, Haskell, Zhang and Sao. Accordingly, claim 8 is allowable at least by its dependency on independent claim 1. Reconsideration and withdrawal of the Examiner's section 103(a) rejection of claim 8 are respectfully requested.

Commonly Owned Subject Matter — §103(c)

The Examiner has rejected claims 16, 17, 19-21, 23-30, 32, and 34-42 as being unpatentable over U.S. Patent No. 6,704,930 to Eldering *et al.* ("Eldering") and claims 18, 22, 31 and 33 as being unpatentable over Eldering in view of Haskell.

The subject matter of the Present Application and Eldering were, at the time the invention of the Present Application was made, commonly owned or subject to an assignment to Telecom Partners, Ltd., predecessor to Expanse Networks, Inc. In support of this statement of common ownership, Applicant respectfully notes the following:

- Eldering was filed on April 20, 2000, as Application No. 09/553,099;

- Eldering claims priority to provisional application No. 60/183,411, filed on February 18, 2000, and provisional application No. 60/130,102, filed on April 20, 1999, both of which were subject to an assignment to Telecom Partners, Ltd.;

- Eldering was assigned to Expanse Networks, Inc. and recorded on September 18, 2000, at Reel/Frame 011109/0372;

- The Present Application was executed and filed on October 20, 2000;

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- The Present Application claims priority to provisional application 60/160,549 filed October 20, 1999, which was subject to an assignment to Telecom Partners, Ltd.; and

- The Present Application was assigned to Expanse Networks, Inc. and recorded on January 8, 2001, at Reel/Frame 011414/0339.

Thus, the terms of 35 U.S.C. §103(c) apply and Eldering is disqualified as prior art against the claims of the present application. See MPEP §706.02(l)(1) and 706.02(l)(2). As such, Applicant respectfully requests that the Examiner's rejections based on Eldering be withdrawn.

Because Eldering is not available as a prior art reference as cited by the Examiner, Applicant submits that the Examiner's rejection of claims 16, 17, 19-21, 23-30, 32, and 34-42 is moot and that these claims are allowable. Reconsideration and withdrawal of the Examiner's rejection of claims 16, 17, 19-21, 23-30, 32, and 34-42 are respectfully requested.

For the same reasons discussed above with respect to the Examiner's obviousness rejection of claims 1-6 and 9, independent claims 16 and 29 are believed to be allowable over Haskell. Accordingly, claims 18, 22, 31 and 33 are allowable at least by their dependency on independent claims 16 and 29, respectively. Reconsideration and withdrawal of the Examiner's section 103(a) rejection of claims 18, 22, 31 and 33 are respectfully requested.

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Conclusion

In view of the foregoing remarks, Applicant respectfully submits that the Examiner's rejections have been overcome, and that the application, including claims 1-9 and 16-42 is in condition for allowance. Reconsideration and withdrawal of the Examiner's rejections and an early Notice of Allowance are respectfully requested.

Respectfully submitted,

Date: _11/3/05_   By: _____
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